Southwest Power Pool

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Stacy Duckett,
VP, General Counsel and Corporate Secretary

September 21, 2005

The Honorable David H. Meyer
Acting Deputy Director
Office of Electricity Delivery and
Energy Reliability
U.S. Department of Energy
Economic.Dispatch@hq.doe.gov

Re: Response of Southwest Power Pool, Inc to *Questions for Stakeholders* in Connection with the Economic Dispatch Study Required by Section 1234 of the Energy Policy Act of 2005.

Dear Mr. Meyer:

Southwest Power Pool, Inc. (SPP) submits this response to your September 1, 2005 letter requesting information in connection with the Department of Energy's ongoing study of the benefits of economic dispatch in the electricity industry.

Please contact me at 501-614-3296 or sduckett @spp.org if there are any questions.

Sincerely,

Stacy Duckett

Energy Policy Act of 2005, Section 1234
Economic Dispatch Study
Response from Southwest Power Pool, Inc.

Questions

1) What are the procedures now used in your region for economic dispatch? Who is performing the dispatch (a utility, an ISO or RTO, or other) and over how large an area (geographic scope, MW load, MW generation resources, number of retail customers within the dispatch area)?

To the extent economic dispatch is currently being performed within the SPP region, it is done by the Control Areas. Each Control Area uses its own procedures for economic dispatch within its footprint. If needed, SPP could provide a survey for those Control Area procedures. When the SPP EIS market is implemented (scheduled for May 1, 2006), SPP will perform economic dispatch as defined by the EPA for the portion of the region participating in the market. SPP has filed with FERC tariff rules that outline the rates and conditions for that economic dispatch.

2) Is the Act's definition of economic dispatch (see above) appropriate? Over what geographic scale or area should economic dispatch be practiced? Besides cost and reliability, are there any other factors or considerations that should be considered in economic dispatch, and why?

It is confusing to include "recognizing any operational limits…" in the definition. Most in the industry refer to economic dispatch as taking on the definition provided excluding any limitations except balancing load and generation, and limits on the use of generation including rate rates, capacity, deratings, etc. Including any limitations, security-constrained economic dispatch, Optimal Power Flow, or something similar, would be a more appropriate term. Because it is possible to perform dispatch based solely on economics, there is a need to distinguish between economic dispatch and security-constrained economic dispatch.

The bigger the area over which economic dispatch is performed, the more likely operational limits can be recognized with a reliability solution that considers economics in a quicker and more effective way than current reliability solutions that do not consider economics (e.g. Transmission Loading Relief). The scope of this area should be limited to that which can reasonably be managed taking into consideration technical system limits and needed expertise. Additionally, the wider the area considered there is a tendency to standardize the dispatch, which could stop or slow needed innovation.

Using the EPA definition of economic dispatch, other factors that might be considered include resource diversity (e.g. fuel mix, resource types such as intermittent, etc.) and load characteristics. This might be necessary to recognize future fuel considerations, unavailability of resources, and rapid resource/load changes. Other methods to accomplish minimizing the cost to the consumers need to be considered including the provision of ancillary services, demand side resources, load forecasting accuracy, and meter/measurement accuracy.

Note that limitations on generation in economic dispatch are determined outside the real-time time frame for fuel or environment limited resources. This may result in a less than optimal

solution in the economic dispatch, but optimizes other long-term goals of the government or cost savings to the consumer.

Note also that there are limitations on the transmission capacity that are tied to the right to use the transmission system. At present, these primarily affect the decisions that are made on which generating resources are on-line and available for economic dispatch. There are cases where the economic dispatch would be limited based on these or other contractual terms. For example, NERC's Transmission Loading Relief procedure calls for the curtailment of schedules that would affect the dispatch of that generation serving the schedule and generation to replace the buyer of the schedule. At a higher level of curtailment, the parties redispatch to relieve the constraint.

3) How do economic dispatch procedures differ for different classes of generation, including utility-owned versus non-utility generation? Do actual operational practices differ from the formal procedures required under tariff or federal or state rules, or from the economic dispatch definition above? If there is a difference, please indicate what the difference is, how often this occurs, and its impacts upon non-utility generation and upon retail electricity users. If you have specific analyses or studies that document your position, please provide them.

As stated above, this is best answered by the individual Control Areas. When the SPP EIS market is implemented, SPP will not use different dispatch procedures for different classes of generation resources that are offered and available for market dispatch. However, there are resources that cannot participate fully in the economic dispatch due to their unique characteristics, for example, wind. The output from wind generation has traditionally not been controllable and thus cannot be "dispatched".

The use of non-utility generation has been limited by the reluctance of those parties to expose commercially sensitive information to the operator of competitive generation sources. Non-utility generators have been more competitive in the wholesale bilateral markets than in the economic dispatch.

4) What changes in economic dispatch procedures would lead to more non-utility generator dispatch? If you think that changes are needed to current economic dispatch procedures in your area to better enable economic dispatch participation by non-utility generators, please explain the changes you recommend.

Independent facilitation of economic dispatch across an appropriately broad region would lead to more opportunities for non-utility generation dispatch. This is one of the reasons that SPP is implementing the SPP EIS market.

5) If economic dispatch causes greater dispatch and use of non-utility generation, what effects might this have – on the grid, on the mix of energy and capacity available to retail customers, to energy prices and costs, to environmental emissions, or other impacts? How would this affect retail customers in particular states or nationwide?

If you have specific analyses to support your position, please provide them to us.

Greater dispatch and use of non-utility generation should provide more options to address grid reliability issues and provide a greater mix of capacity and energy options. This is expected to at least reduce the cost of reliability and wholesale cost of energy.

It does not appear that economic dispatch as currently defined directly considers environmental emissions therefore the impact is uncertain. Environmental emissions limitations are usually set over longer periods of time than the economic dispatch time horizon (which is at the most one hour).

Retail customers' rates are set by regulatory or governmental bodies. These rates could reflect the realized cost savings associated with the increase in dispatch options through mechanisms like fuel clauses or formula rates. Otherwise, rate cases or other means would have to be pursued to reduce retail rates.

6) Could there be any implications for grid reliability – positive or negative – from greater use of economic dispatch? If so, how should economic dispatch be modified or enhanced to protect reliability?

Greater use of economic dispatch as defined and properly accomplished would have a positive impact on grid reliability. To best protect reliability, economic dispatch should be performed by an independent party with 1) the appropriate infrastructure and expertise to reliably manage dispatch over a broad region, with the region being defined as that area which is subject to a consistent set of reliability rules, standards, and/or criteria; and 2) the ability to maintain confidentiality of sensitive information.